



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

July 25, 2003

TVA-BFN-TS-442

10 CFR 50.90

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop OWFN, P1-35  
Washington, D. C. 20555

Gentlemen:

In the Matter of	)	Docket Nos. 50-259
Tennessee Valley Authority	)	50-260
		50-296

**BROWNS FERRY NUCLEAR PLANT (BFN) - UNITS 1, 2, and 3 -  
TECHNICAL SPECIFICATIONS (TS) CHANGE 442 - REVISION TO SCRAM  
DISCHARGE VOLUME VENT AND DRAIN VALVE REQUIRED ACTIONS USING  
THE CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS**

In accordance with the provisions of 10 CFR 50.90, TVA is submitting a request for an amendment to licenses DPR-33, DPR-52, and DPR-68 for BFN Units 1, 2, and 3, respectively.

The proposed amendment would revise the required actions within TS 3.1.8, "Scram Discharge Volume (SDV) Vent and Drain Valves," for the condition of having one or more SDV vent or drain lines with one valve inoperable. These changes are based on Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-404, "SDV Actions," that has been approved generically for the BWR/4 Standard Technical Specifications, NUREG-1433, Revision 2. The availability of this TS improvement was announced in the Federal Register on April 15, 2003, as part of the Consolidated Line Item Improvement Process (CLIIP).

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Enclosure 1 provides a description of the proposed change and confirmation of applicability. Enclosure 2 provides the existing TS pages marked-up to show the proposed changes. Enclosure 3 provides the existing TS Bases pages marked-up to reflect the proposed TS changes. There are no new regulatory commitments made in this submittal.

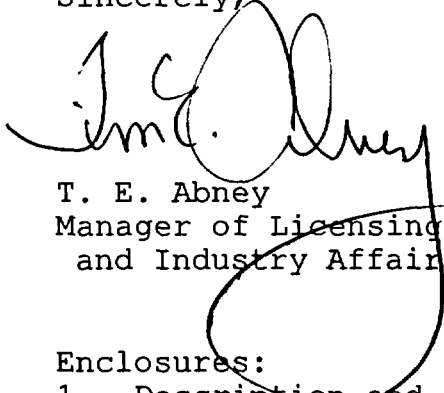
TVA requests approval of the proposed TS change for Units 1, 2, and 3 by January 30, 2004, and that the revised TS be made effective within 60 days of NRC approval.

TVA has determined that there are no significant hazards considerations associated with the proposed change and that the TS change qualifies for a categorical exclusion from environmental review pursuant to the provisions of 10 CFR 51.22(c)(9). Additionally, in accordance with 10 CFR 50.91(b)(1), TVA is sending a copy of this letter and attachments to the Alabama State Department of Public Health.

This letter is being sent in accordance with NRC Regulatory Issue Summary 2001-05, Guidance on Submitting Documents to the NRC by Electronic Information Exchange or on CD-ROM. If you have any questions concerning this submittal, please contact me at (256) 729-2636.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 25, 2003.

Sincerely,



T. E. Abney  
Manager of Licensing  
and Industry Affairs

Enclosures:

1. Description and Assessment
2. Proposed Technical Specifications Changes (mark-up)
3. Proposed Technical Specifications Bases Changes (mark-up)

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cc (Enclosures):  
State Health Officer  
Alabama State Department of Public Health  
RSA Tower - Administration  
Suite 1552  
P.O. Box 303017  
Montgomery, Alabama 36130-3017

## Enclosure 1

### Technical Specifications (TS) Change 442

#### Revision to Scram Discharge Volume Vent and Drain Valve Required Actions Using the Consolidated Line Item Improvement Process

#### Description and Assessment

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##### 1.0 DESCRIPTION

The proposed amendment would revise the required actions within TS 3.1.8, "Scram Discharge Volume (SDV) Vent and Drain Valves," for the condition of having one or more SDV vent or drain lines with one valve inoperable. The changes are based on Technical Specification Task Force (TSTF) Change Traveler, TSTF-404, Revision 0, "SDV Actions," that has been approved generically for the BWR/4 Standard Technical Specifications, NUREG-1433, Revision 2. The availability of this TS improvement was announced in the *Federal Register* on April 15, 2003 as part of the Consolidated Line Item Improvement Process (CLIIP).

##### 2.0 ASSESSMENT

###### 2.1 Applicability of Published Safety Evaluation

TVA has reviewed the model safety evaluation published on April 15, 2003 (68 FR 18294), as part of the CLIIP. TVA's verification included a review of the NRC staff's evaluation as well as the supporting information provided to support TSTF-404. TVA has concluded that the justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to BFN Units 1, 2, and 3 and justify this amendment for the incorporation of the changes to the BFN Unit 1, 2, and 3 TS.

###### 2.2 Optional Changes and Variations

TVA is not proposing any variations or deviations from the TS changes described in TSTF-404 or the NRC staff's model safety evaluation published on April 15, 2003.

### **3.0 REGULATORY ANALYSIS**

#### **3.1 No Significant Hazards Determination**

TVA has reviewed the proposed no significant hazards consideration determination published on April 15, 2003, as part of the CLIIP. TVA has concluded that the proposed determination presented in the notice is applicable to BFN, and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

#### **3.2 Verification and Commitments**

There are no new regulatory commitments associated with this proposed change.

### **4.0 ENVIRONMENTAL EVALUATION**

TVA has reviewed the environmental evaluation included in the model safety evaluation published on April 15, 2003, as part of the CLIIP. TVA has concluded that the NRC staff's findings presented in that evaluation are applicable to BFN Units 1, 2, and 3, and the evaluation is hereby incorporated by reference for this application.

Enclosure 2

Technical Specifications (TS) Change 442

Revision to Scram Discharge Volume Vent and Drain  
Valve Required Actions Using the Consolidated Line  
Item Improvement Process

Proposed Technical Specifications Changes (mark-up)

3.1 REACTIVITY CONTROL SYSTEMS

3.1.8 Scram Discharge Volume (SDV) Vent and Drain Valves

LCO 3.1.8 Each SDV vent and drain valve shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTIONS

S

NOTE

1. Separate Condition entry is allowed for each SDV vent and drain line.
2. An isolated line may be unisolated under administrative control to allow draining and venting of the SDV.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more SDV vent or drain lines with one valve inoperable.	A.1 <del>Restore valve to OPERABLE status.</del> Isolate the associated line.	7 days
B. One or more SDV vent or drain lines with both valves inoperable.	B.1 <del>NOTE An isolated line may be unisolated under administrative control to allow draining and venting of the SDV.</del>  Isolate the associated line.	8 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	12 hours

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APPLICABILITY: MODES 1 and 2.

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C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	12 hours



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A. One or more SDV vent or drain lines with one valve inoperable.	A.1 <del>Restore valve to OPERABLE status.</del> Isolate the associated line.	7 days
B. One or more SDV vent or drain lines with both valves inoperable.	B.1 <del>NOTE An isolated line may be unisolated under administrative control to allow draining and venting of the SDV.</del> Isolate the associated line.	8 hours
C. Required Action and associated Completion Time not met.	C.1 Be in MODE 3.	12 hours

Enclosure 3

Technical Specifications (TS) Change 442

Revision to Scram Discharge Volume Vent and Drain  
Valve Required Actions Using the Consolidated Line  
Item Improvement Process

Proposed Technical Specifications Bases Changes  
(mark-up)

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BASES (continued)

**APPLICABILITY** In MODES 1 and 2, scram may be required; therefore, the SDV vent and drain valves must be OPERABLE. In MODES 3 and 4, control rods are not able to be withdrawn since the reactor mode switch is in shutdown and a control rod block is applied. This provides adequate controls to ensure that only a single control rod can be withdrawn. Also, during MODE 5, only a single control rod can be withdrawn from a core cell containing fuel assemblies. Therefore, the SDV vent and drain valves are not required to be OPERABLE in these MODES since the reactor is subcritical and only one rod may be withdrawn and subject to scram.

When a line is isolated, the potential for an inadvertent scram due to high SDV level is increased. During these periods, the line may be unisolated under administrative control. This allows any accumulated water in the line to be drained, to preclude a reactor scram on SDV high level. This is acceptable, since the administrative controls ensure the valve can be closed quickly, by a dedicated operator, if a scram occurs with the valve open.

**ACTIONS** The ACTIONS Table is modified by a Note indicating that a separate Condition entry is allowed for each SDV vent and drain line. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable SDV line. Complying with the Required Actions may allow for continued operation, and subsequent inoperable SDV lines are governed by subsequent Condition entry and application of associated Required Actions.

A.1

When one SDV vent or drain valve is inoperable in one or more lines, the valve must be restored to OPERABLE status within 7 days. The Completion Time is reasonable, given the level of redundancy in the lines and the low probability of a scram occurring during the time the valve(s) are inoperable. The SDV is still isolable since the redundant valve in the affected line is OPERABLE. During these periods, the single failure criterion may not be preserved, and a higher risk exists to allow reactor water out of the primary system during a scram.

the associated line must be isolated to contain the reactor coolant during a scram. The 7 day Completion Time is reasonable, given the level of redundancy in the lines and the low probability of a scram occurring during the time the valve(s) are inoperable and the line is not isolated.

(continued)

BASES

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ACTIONS  
(continued)

B.1

If both valves in a line are inoperable, the line must be isolated to contain the reactor coolant during a scram. ~~When a line is isolated, the potential for an inadvertent scram due to high SDV level is increased. Required Action B.1 is modified by a Note that allows periodic draining and venting of the SDV when a line is isolated. During these periods, the line may be unisolated under administrative control. This allows any accumulated water in the line to be drained, to preclude a reactor scram on SDV high level. This is acceptable since the administrative controls ensure the valve can be closed quickly, by a dedicated operator, if a scram occurs with the valve open.~~

The 8 hour Completion Time to isolate the line is based on the low probability of a scram occurring while the line is not isolated and unlikelihood of significant CRD seal leakage.

C.1

If any Required Action and associated Completion Time is not met, the plant must be brought to a MODE in which the LCO does not apply. To achieve this status, the plant must be brought to at least MODE 3 within 12 hours. The allowed Completion Time of 12 hours is reasonable, based on operating experience, to reach MODE 3 from full power conditions in an orderly manner and without challenging plant systems.

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(continued)

BASES (continued)

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When a line is isolated, the potential for an inadvertent scram due to high SDV level is increased. During these periods, the line may be unisolated under administrative control. This allows any accumulated water in the line to be drained, to preclude a reactor scram on SDV high level. This is acceptable, since the administrative controls ensure the valve can be closed quickly, by a dedicated operator, if a scram occurs with the valve open.



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(continued)

BASES

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ACTIONS  
(continued)

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(continued)

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